

BUDGET PCs

INTRODUCTION

Everybody likes a bargain, but some deals are too good to be true and can be a false economy. PCs are a good example, with very cheap models sometimes being based on older technology, which can make upgrades difficult or impossible.

We think £400 (including VAT and delivery) is about as low as you should go when looking for a bargain PC. We asked six manufacturers to submit PCs at this price for this month's Labs. They are all based around the latest technology and they are all fully upgradable.

Despite their low prices, these PCs have impressive specifications. Dual-core processors come as standard, and they all have widescreen 19in monitors. They also come with Windows Vista Home Premium rather than the cut-down Basic version.

If you have a small budget but you still need a capable PC, there's something in this month's Labs to suit both your needs and your wallet.

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£400 VISTA PCs

Even on a budget, you can reap the benefits of a dual-core processor, widescreen display and Vista. We test six surprisingly cash-friendly systems

Choosing a...
£400 Vista PC

You can't get a PC for £400 that's going to be perfect for everyone, but you should be able to find one that's right for you. Think about the tasks you want to undertake, then read this buying guide to work out which system is best for your needs.

PERFORMANCE

These days, even cheap PCs like those in this Labs have fast dual-core processors and a healthy amount of RAM. All the PCs will run Windows Vista, browse the web, send email and deal with office applications without problems. They're also powerful enough to touch up a few holiday snaps or do basic video-editing jobs. If this is all you want to do, then application performance shouldn't be your main consideration.

But if you're planning on cutting a feature film, batch-editing hundreds of images or re-encoding video files into different formats, pay attention to our benchmark graphs on page 78. Also, tougher tasks benefit from plenty of RAM. The Gladiator and PC Nextday systems both come with 2GB of memory.

GRAPHICS AND VIDEO

You aren't going to get a fully fledged gaming PC for only £400, as modern games need expensive graphics

cards to run smoothly. Most PCs here have integrated graphics chipsets on their motherboards instead of dedicated cards.

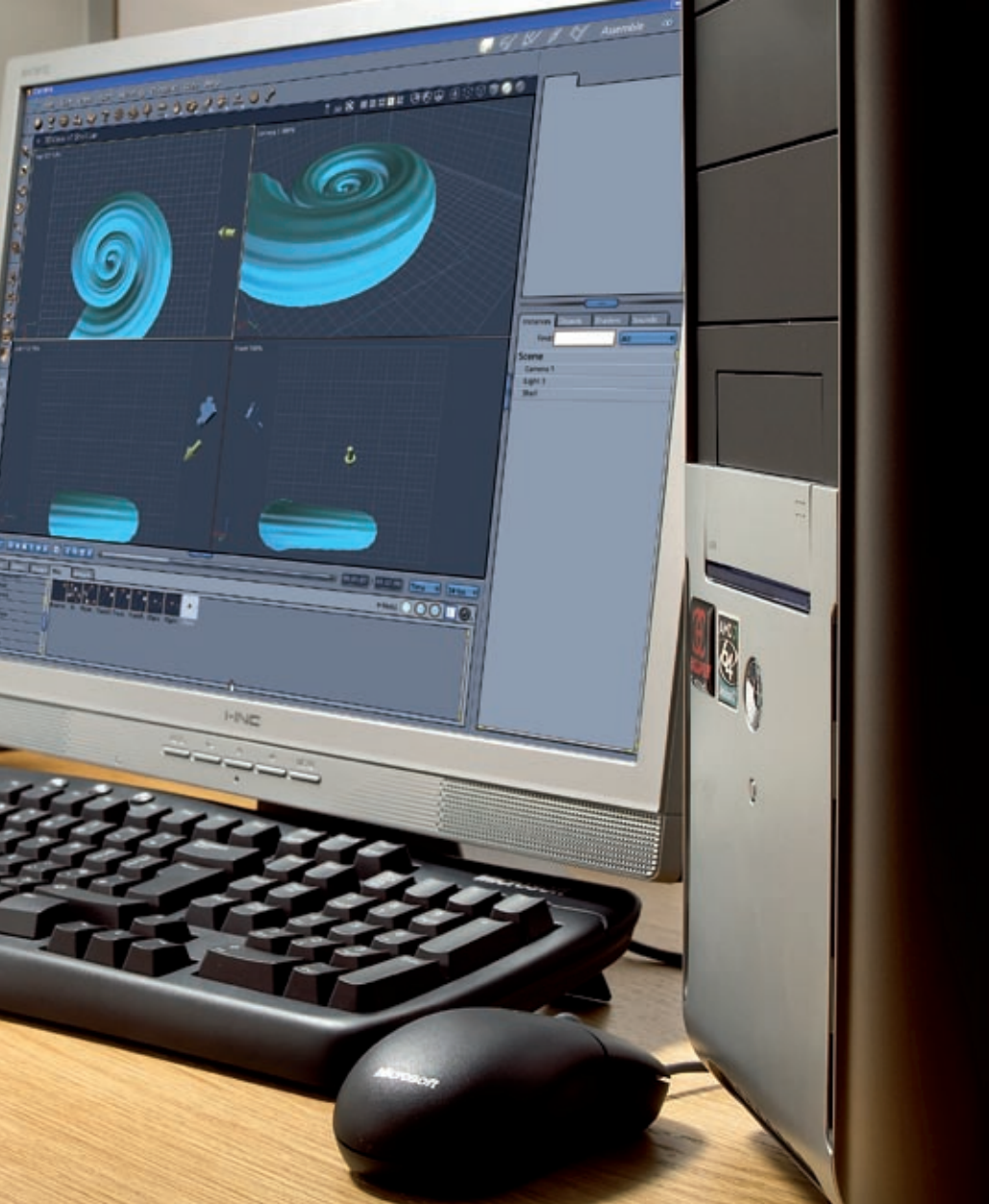
CCL's DUO4400 and Eclipse's MAX have dedicated graphics cards but, as our benchmarks show, neither can run modern games at high detail. The cards will cope with older games, however, and are powerful enough to play back high-definition video. They both have TV outputs to connect your PC to an old CRT TV.

If you want a really cheap gaming PC, choose the PC you prefer and contact the manufacturer about a graphics card upgrade, or simply add one yourself. An ATI X1950 Pro graphics card should cost under £100 if you need another line.

STORAGE

If you only use your PC for surfing the net and doing your accounts, you'll probably never fill the Eclipse MAX's 160GB hard disk. However, those who hoard music, photo or video files on their PCs will want as much space as possible. Most of the PCs here come with 250GB hard disks, which should hold out for a while before they need spring-cleaning. Gladiator's Trojan and CCL's DUO4400 have the biggest hard disks here, with 320GB of space.





This month

CCL DUO4400-CSP

Page 76



ECLIPSE Eclipse MAX a44n85GT

Page 76



GLADIATOR Trojan PCP3600

Page 76



PC NEXTDAY Zoostorm 61-2323

Page 77



PC SPECIALIST Fusion V4000

Page 77



RL SUPPLIES Modula 2140

Page 77



However big your hard disk is, you'll probably want to back up or archive files at some point. All the PCs here have fast DVD writers for this purpose. Four PCs have memory card readers so you can easily transfer your digital photos to your PC. Check the table on page 81 to make sure your memory card format is supported.

MONITOR

All the monitors supplied with these PCs have 19in widescreen displays, with native resolutions of 1,440x900 pixels. They're ideal for watching DVDs or running two applications side by side. They also have fast response times, so you shouldn't see any motion blur when playing games or watching video.

Despite these outward similarities, there are differences in the quality of images displayed. Everyone should look for a good monitor when buying a PC, and those who plan on doing photo work or watching a lot of video content should make it a big part of their buying decision. Our favourite was the I-INC model that came with Eclipse's and Gladiator's PCs. See the individual reviews for details on the monitors supplied.

INPUT DEVICES

Input devices may not be the most exciting part of a new PC, but poor examples can make any task frustrating. If you're on a tight budget, you don't want to shell out for replacements after

Which PC? Desktops and notebooks compared

You can pick up a cheap notebook or desktop PC for similar money. Notebooks have clear advantages such as small size and portability, while budget desktop PCs tend to be more powerful and are easier to upgrade.

Here we've compared our Best Buy PC to a well-specified notebook of the same price. The desktop PC is faster and so will complete tough tasks quicker. It has a bigger, higher-resolution display, so is more suitable for large documents. There is also a dedicated

graphics card for games, while the notebook has a basic integrated chipset. The desktop PC's hard disk is four times the size, though both come with Windows Vista Home Premium.

The other big advantage of a desktop PC is it's far easier and cheaper to upgrade, as you can easily replace the main components. The only straightforward upgrade for a notebook is to add more RAM, but even then you must discard the RAM already filling the memory slots, making it an expensive proposition.

	£400 DESKTOP PC	£400 NOTEBOOK
Processor	2.0GHz Intel Core 2 Duo E4400	1.66GHz Intel Core Duo T5500
Overall Shopper benchmark score	155	127
Memory installed	1GB	1GB
Possible upgrades	Processor, RAM, graphics card	RAM
Hard disk capacity	320GB	80GB
Graphics	256MB dedicated card	Integrated chipset using shared memory
Display	19in widescreen 1,440x900	15.4in widescreen 1,280x800
Operating system	Windows Vista Home Premium	Windows Vista Home Premium

only a couple of weeks. Most PCs here come with decent Microsoft or Logitech devices, but the keyboards and mice supplied with the PC Nextday and RL Supplies PCs are disappointing.

UPGRADES

One big advantage of a desktop PC over a notebook is that it's easy to upgrade in the

future if you need more power or extra features. Most of the PCs in this group have room for upgrades. Those that come with 1GB of RAM can easily be upgraded to 2GB if required. All the PCs have spare SATA ports for adding extra hard disks. They also all have spare PCI and, except for Gladiator's Trojan, spare PCI Express x1 slots for expansion cards.



CCL DUO4400-CSP



£400 inc VAT and delivery



CCL's DUO4400-CSP is one of only two budget PC systems here to come with a dedicated PCI-Express graphics card.

FEATURES

The case is compact, but there's plenty of room inside. The motherboard has all the slots you need to add extra memory, expansion cards or more storage. A memory card reader makes it easy to transfer your digital photos to the hard disk. There's a large 320GB model fitted, which should take some time to fill. The PC is louder than most in the group, thanks to loud processor cooler and graphics card fans.

Its monitor is the only one here to rotate on its stand. It tilts more than most and can be set to two different heights. The display isn't as bright as the I-INC monitor supplied with Eclipse's and Gladiator's PCs, however. Colours were a little oversaturated, and there was a pink hue to the greyscale test.

The only speakers are those built into the monitor, but the PC comes with a decent Microsoft keyboard and mouse.

PERFORMANCE

The Nvidia GeForce 8400GS graphics card isn't quick enough to play modern games at high detail settings. It managed only 7.3fps in our Call of Duty 2 test. To make it playable, we had to reduce the resolution to 800x600 and turn off anti-aliasing. It's not for dedicated gamers, although you could use it to play strategy games or older first-person shooters. The Intel Core 2 Duo E4400 processor helped it to an impressive overall score of 155 in our 2D benchmarks, second only to PC Nextday's Zoostorm. It's fast enough to take on most tasks, though an extra 1GB of RAM would be useful for video editing or running multiple applications.

VERDICT

This PC has a fast processor, large hard disk and dedicated graphics card. It's an impressive all-round PC system, and a bargain at this price.

SUMMARY

- ✓ Fast in applications
- ✓ Dedicated graphics card
- ✓ Big hard disk

DESKTOP PC Intel Core 2 Duo E4400, 1GB RAM, 320GB hard disk, 256MB XFX GeForce 8400GS, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE DUO4400-CSP
SUPPLIER CCL 01274 471201
DETAILS www.cclonline.com



ECLIPSE Eclipse MAX a44n85GT



£400 inc VAT and delivery

Like CCL's PC, the MAX has a dedicated graphics card, but it's not as quick in 2D applications.

FEATURES

The black and silver chassis looks bland except for the blue LED strip. There's no memory card reader, so you'll have to buy a USB card reader or use a cable to connect your camera. Its 160GB hard disk is the smallest here. The four fans make a fairly loud, low-pitched humming. The case has plenty of room for hard disks and optical drives, and there is a powerful 450W power supply.

The monitor's slim silver bezel goes well with the case. The screen displays the brightest white of any here. Colours were accurate, and the screen's high contrast produced crisp-looking text. Images had a slight grainy texture, though, and it did poorly in our greyscale test.

The MAX relies on its monitor speakers for audio, and has a reasonable-quality Microsoft keyboard and mouse.

PERFORMANCE

The Nvidia GeForce 8500GT graphics card is not fast enough to run modern games at high detail settings. It ran our Call of Duty 2 test at just 11fps. To make it playable, we had to reduce the resolution to 1,024x768 and turn off anti-aliasing. However, the card is powerful enough to play back high-definition video and has enough different video outputs to connect to most TVs.

The AMD Athlon 64 X2 4400+ processor has the highest clock speed here. Despite this, it's not as quick in our application benchmarks as some of the Intel Core 2 Duo-based PCs, and was third overall with a score of 141.

VERDICT

This PC has a dedicated graphics card, decent monitor and good benchmark scores, but CCL's DUO4400 has a larger hard disk and is faster in 2D applications.

SUMMARY

- ✓ Fast in applications; good display
- ✓ Dedicated graphics card
- ✗ Small hard disk

DESKTOP PC AMD Athlon 64 X2 4400+, 1GB RAM, 160GB hard disk, 256MB Nvidia GeForce 8500GT, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE MAX a44n85GT
SUPPLIER Eclipse 08707 456 000
DETAILS www.eclipse-computers.com



GLADIATOR Trojan PCP3600



£399 inc VAT and delivery

Gladiator's Trojan isn't the fastest PC here, but it has a good display and reasonable speakers.

FEATURES

The case has plenty of free drive bays for optical drives and hard disks. The motherboard doesn't have any PCI-Express x1 slots, so you are limited to adding standard PCI expansion cards. It's quieter than either of the PCs with dedicated graphics cards, but sounds a little whiny. There's no memory card reader fitted but the hard disk is the joint biggest here, with a 320GB capacity.

The Trojan has the same excellent display as Eclipse's MAX. It also comes with a set of 2.1 speakers, so you don't have to rely on those built into the monitor. The X-Pro 990s aren't the best-sounding speakers we've heard and there's no bass control for the subwoofer, but they're still better than monitor speakers. Finally, there's a decent Logitech keyboard and mouse set.

Gladiator provides a two-year return-to-base (RTB) warranty. That's an extra year of coverage compared to most PCs in the group.

PERFORMANCE

Gladiator's Trojan is one of only two PCs here with 2GB of RAM, yet was still the slowest PC in 2D applications with an overall score of 127. However, there's little to divide the bottom three PCs in real-world performance. It's still easily powerful enough for day-to-day tasks, and thanks to its extra memory it will deal with memory-intensive tasks such as image editing without a RAM upgrade.

The Trojan has no dedicated graphics card and instead uses the motherboard's integrated graphics chipset. This makes it unsuitable for playing modern 3D games.

VERDICT

With its big hard disk, good display and 2.1 speaker set, this is a great all-round PC system. If having a fast PC isn't really a big consideration for you, it's worth considering.

SUMMARY

- ✓ Good display; separate speakers
- ✓ Big hard disk
- ✗ Not particularly quick

DESKTOP PC AMD Athlon 64 X2 3600+, 2GB RAM, 320GB hard disk, ATI Radeon X1250, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE Trojan PCP3600
SUPPLIER Gladiator 08456 444666
DETAILS www.gladiatorcomputers.com



PC NEXTDAY Zoostorm 61-2323

★★★★★

£407 inc VAT and delivery

PC Nextday's Zoostorm is easily the fastest PC here, but its power comes at the expense of its specification. It's also a little over our budget.

FEATURES

The PC's case is ideal for those who like to keep their PCs under their desks, as the power button, headphone socket and USB2 ports are all conveniently situated on its top front edge. The PC is fairly loud, with the case fan and power supply making a steady drone.

The monitor looks good, with a slim silver bezel. However, it has a separate power supply that clutters up your desk. The display isn't as bright as those of the best monitors here, and images are slightly grainy. Colours weren't reproduced as accurately as we'd like. Even after fiddling with the controls, our greyscale test had a greenish tinge. It's not terrible, but there are better monitors here.

There are no built-in speakers, and no separate ones included. The supplied keyboard feels a bit spongy and unresponsive, and the mouse is fairly inaccurate. It's the poorest set of peripherals in the group.

A one-year onsite warranty is provided, so you won't have the hassle of returning this PC to the manufacturer for repairs.

PERFORMANCE

This PC is noticeably quicker than every other computer here in our application tests, with an impressive overall score of 174. It comes with 2GB of RAM, so it shouldn't require an upgrade for the foreseeable future.

Like most of the PCs here, there's no dedicated graphics card fitted, and the integrated chipset couldn't run our 3D games tests at the required settings.

VERDICT

PC Nextday's Zoostorm is fast, but it has a disappointing monitor, keyboard and mouse. It's worth considering if you're after great application performance on a budget, but CCL's DUO4400 is better value overall.

SUMMARY

- ✓ Very fast in applications
- ✓ Onsite warranty
- ✗ Poor input devices

DESKTOP PC Intel Core 2 Duo E4500, 2GB RAM, 250GB hard disk, Intel Graphics Media Accelerator 950, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE 3361-2323
SUPPLIER PC Nextday
DETAILS www.pcnextday.co.uk



PC SPECIALIST Fusion V4000

★★★★★

£399 inc VAT and delivery

The Fusion V4000 is the first system from PC Specialist to appear in our Labs. It certainly made an impression with its distinctive styling.

FEATURES

The case's silver mesh front and the monitor's exposed bolts give the PC an industrial look. It split opinion in our Labs; some were horrified by its stark looks, while others appreciated them.

There's a card reader on the front and a decent-sized 250GB hard disk inside. It's one of the quieter PCs here, thanks to a big and slow case fan. It's got all the spare slots you'll need for upgrades, plus a powerful 500W power supply, so you'll have plenty of juice for any extras you add.

This PC has the same monitor as CCL's DUO4400. It's physically more adjustable than most of the monitors in the group, and image quality is good but not outstanding.

A pair of basic Logitech 2.0 speakers is provided. These sound better than any monitor speakers in the group, but can't match the DUO4400's 2.1 set. The Logitech keyboard and mouse are reasonably good quality, so you won't need to replace them.

PERFORMANCE

In our *Shopper* benchmarks, the Fusion scored 131 overall, which is similar to the Gladiator Trojan and RL Supplies Modula's scores. It's easily fast enough for day-to-day tasks, though you might want to add more RAM if you plan on doing memory-hungry work such as video or image editing.

The integrated graphics chipset could barely run our 3D gaming tests. You'd need to fit a dedicated graphics card in the PCI Express slot to make the PC suitable for gaming. It does have D-sub and digital DVI outputs, though.

VERDICT

The Fusion is a good PC with everything you'll need for day-to-day computing. However, except for its appearance, there's little to make it stand out from the crowd.

SUMMARY

- ✓ Separate speakers
- ✓ Distinctive case
- ✗ Not particularly quick

DESKTOP PC AMD Athlon 64 X2 4000+, 1GB RAM, 250GB hard disk, ATI Radeon X1250, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE Fusion V4000
SUPPLIER PC Specialist 0844 499 4000
DETAILS www.pcspecialist.co.uk



RL SUPPLIES Modula 2140

★★★★★

£400 inc VAT and delivery

Its specification isn't particularly exciting, but RL Supplies has included a two-year warranty with its Modula 2140.

FEATURES

The case is similar to Eclipse's MAX, but is black so matches the accompanying Asus monitor. The PC makes comparatively little noise when running, as there's no graphics card or case fan. A 450W power supply is fitted, so you have lots of power for future upgrades.

The monitor is capable of crisp text thanks to a high contrast ratio. However, our white test showed the backlight to be inconsistent around the edges of the screen. The greyscale test showed significant banding, but colours looked vibrant. It's a good budget monitor, though not as impressive as the I-INC screens supplied with Eclipse's and Gladiator's PCs. There are no speakers built into the monitor and no separate ones supplied.

The keyboard feels cheap, as the keys have a spongy and unresponsive action. It's nowhere near as good as the budget Microsoft and Logitech keyboards supplied with the CCL, Eclipse, Gladiator and PC Specialist PCs.

The two-year warranty gives an extra year's peace of mind compared to most PCs in the group. Our PC came with Windows XP Home installed, but you can upgrade to Windows Vista Home Premium for free.

PERFORMANCE

The Intel Pentium Dual Core E2140 processor runs at 1.6GHz, but managed an overall score of 129 in our *Shopper* benchmarks. Like most PCs here, this system uses an integrated graphics chipset. It failed to run either of our 3D gaming benchmarks, and you'll need to invest in a graphics card to play modern 3D games.

VERDICT

This PC has reasonable 2D performance, but comes with a poor keyboard. If you want a two-year warranty, Gladiator's Trojan is a better all-round choice.

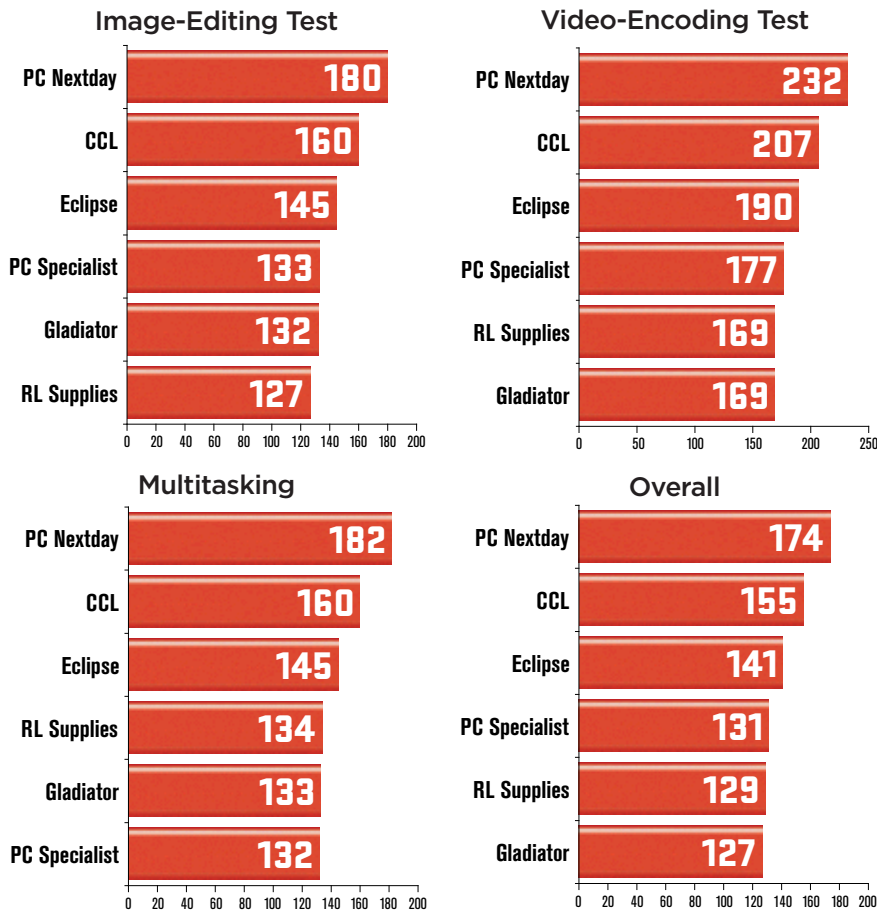
SUMMARY

- ✓ Two-year warranty
- ✓ Good monitor
- ✗ Poor input devices; not particularly quick

DESKTOP PC Intel Pentium Dual Core E2140, 1GB RAM, 250GB hard disk, VIA S3G UniChrome Pro IGP, DVD+/-RW +/-DL, 19in widescreen LCD
PART CODE Modula 2140
SUPPLIER RL Supplies 01923 896996
DETAILS www.rlsupplies.co.uk

BENCHMARKS

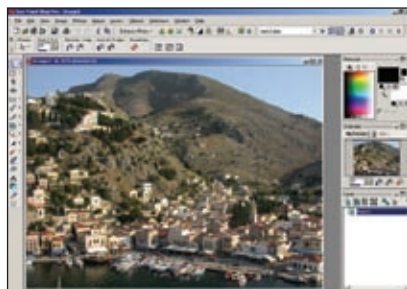
2D Performance Shopper Application Tests



Computer Shopper's 2D benchmarks have been designed to show how PCs stand up to the toughest tasks Windows can throw at them. Today's PCs have no problem running office applications such as Word and Excel, so we have chosen to focus our tests on areas where you could experience difficulties.

Encoding a short video to MPEG2 format is a processor-intensive task that anyone transferring home videos to DVD will have to tackle. Our image-editing test simulates a session of photo enhancement using Paint Shop Pro X. In our third test, a set of audio files is ripped to MP3 format.

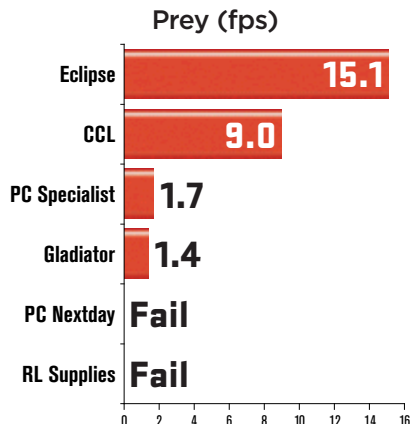
Finally, we have a multitasking test designed to test the benefits of Hyper-Threading and dual-core processors. This test compresses a DVD at the same time as running our



SETTINGS We run our application tests at 1,280x1,024 resolution and in 32-bit colour
WEB www.computershopper.co.uk

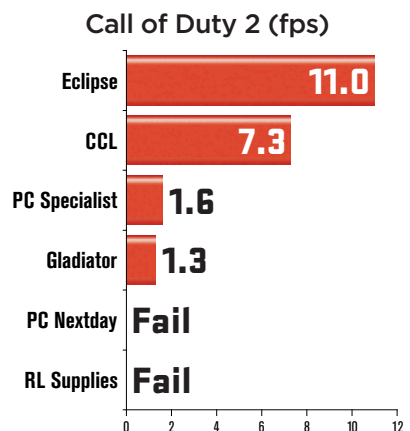
image-editing test. Figures are relative to a reference Evesham Athlon 64 3500+, which scores 100 in all tests.

3D Performance Games



SETTINGS 1,280x1,024 resolution, high shader detail, 4x AA
WEB www.prey.com

Our Prey benchmark tests whether a PC has the power needed to play cutting-edge 3D games. A good score here indicates that a PC should cope with graphically intense 3D games.



SETTINGS 1,280x1,024 resolution, 32-bit colour, default settings
WEB www.futuremark.com

Call of Duty 2 uses DirectX and is one of the most demanding games available. With a wide range of effects and frenetic action, it tests every aspect of graphics performance.

Labs verdict £400 Vista PCs

With a budget of only £400, we weren't expecting that much from these bargain PCs. As it turned out, we were pleasantly surprised, not only by the specifications of these systems but also by the quality of most of their peripherals.

Eventually, we managed to narrow the group down to three PCs. PC Nextday's Zoostorm 61-2323 packs an incredible amount of performance into a very cheap PC.

We had some reservations about its monitor, but if you need speed above all else then it's a good choice. At the other end of the scale is Gladiator's Trojan PCP3600, which has an excellent set of peripherals for the money, but wasn't that impressive in our application benchmarks.

However, our overall winner is CCL's DUO4400-CSP. It has a big hard disk and a dedicated graphics card, and it comes with a



decent monitor and input devices. This system also performed well in our application benchmarks, and so it is a worthy winner of our Best Buy award.



MANUFACTURER	CCL	ECLIPSE	GLADIATOR	PC NEXTDAY	PC SPECIALIST	RL SUPPLIES
Model name	DUO4400-CSP	MAX a44n85GT	Trojan PCP3600	Zoostorm 61-2323	Fusion V4000	Modula 2140
Score overall	★★★★★	★★★★	★★★★★	★★★★	★★★	★★★
Processor	Intel Core 2 Duo E4400	AMD Athlon 64 X2 4400+	AMD Athlon 64 X2 3600+	Intel Core 2 Duo E4500	AMD Athlon 64 X2 4000+	Intel Pentium Dual Core E2140
Processor external bus	200MHz (800MHz Quad-pumped)	200MHz (1,000MHz HyperTransport)	200MHz (1,000MHz HyperTransport)	200MHz (800MHz Quad-pumped)	200MHz (1,000MHz HyperTransport)	200MHz (800MHz Quad-pumped)
Processor multiplier	X10	X11.5	X9.5	X11	X10.5	X8
Processor speed	2.0GHz	2.3GHz	1.9GHz	2.2GHz	2.1GHz	1.6GHz
Processor socket	LGA775	Socket AM2	Socket AM2	LGA775	Socket AM2	LGA775
Level I cache	128KB	256KB	256KB	128KB	256KB	128KB
Level II cache	2048KB	2x 512KB	2x 512KB	2,048KB	2x 512KB	1,024KB
Memory installed	1GB	1GB	2GB	2GB	1GB	1GB
Memory type	PC2-4300	PC2-5300	PC2-5300	PC2-5300	PC2-5300	PC2-5300
Maximum memory	4GB	8GB	8GB	2GB	8GB	2GB
Motherboard	Biostar P4M900 Micro 775 (ver 6.1)	ASRock ALiveNF6G-VSTA	Jetway M2A692-GDG-PB	Foxconn 945GZ7MC-KS2H	Asus M2A-VM	Asus P5VD2-MX SE
Motherboard chipset	Via P4M900 + VT8237A	Nvidia NF6100-430	AMD 690G + ATI SB600	Intel 945GZ + ICH7	AMD 690G + ATI SB600	Via P4M890 + VT8237A
BIOS type	Phoenix	AMI	Phoenix	Phoenix	Phoenix	AMI
PORTS						
USB2 ports (front/rear)	3/4	2/4	2/4	3/4	3/6	3/4
FireWire ports (front/rear)	0/0	0/0	0/0	0/0	0/0	0/0
Networking	10/100	10/100	10/100/1,000	10/100/1,000	10/100/1,000	10/100
Legacy ports	2x PS/2, serial, parallel	2x PS/2, serial, parallel	2x PS/2	2x PS/2, serial, parallel	2x PS/2, serial, parallel	2x PS/2, serial, parallel
Other ports	D-sub	None	None	None	None	None
INTERNAL EXPANSION						
Case	Midi tower	Midi tower	Midi tower	Midi tower	Midi tower	Midi tower
Case size HxWxD	359x180x441mm	418x179x452mm	429x209x465mm	360x180x450mm	425x190x472mm	418x179x452mm
PCI (free)	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)
PCI-E x1 (free)	1 (1)	1 (1)	0 (0)	1 (1)	1 (1)	1 (1)
PCI-E x16 (free)	1 (0)	1 (0)	1 (1)	1 (1)	1 (1)	1 (1)
Serial ATA (free)	2 (1)	4 (3)	4 (3)	4 (3)	4 (3)	2 (1)
Memory (free)	2 (1)	4 (2)	4 (2)	2 (0)	4 (2)	2 (1)
Drive bays 3½in (free)	6 (4)	6 (5)	7 (6)	6 (4)	5 (3)	6 (4)
Drive bays 5¼in (free)	2 (1)	4 (3)	3 (2)	2 (1)	3 (2)	4 (3)
HARD DISK						
Model	Western Digital Caviar SE16 (WD3200AAS)	Maxtor Diamondmax 20 (STM3160211AS)	Maxtor Diamondmax 21 (STM3320820AS)	Western Digital Caviar SE (WD2500JS)	Western Digital Caviar SE (WD2500JS)	Hitachi Deskstar T7K500 (HDT725025VLA380)
Interface	SATA 300	SATA 300	SATA 300	SATA 300	SATA 300	SATA 300
Capacity	320GB (298GB)	160GB (149GB)	320GB (298GB)	250GB (233GB)	250GB (233GB)	250GB (233GB)
Spin speed	7,200rpm	7,200rpm	7,200rpm	7,200rpm	7,200rpm	7,200rpm
GRAPHICS						
Graphics card	256MB XFX GeForce 8400GS	256MB Nvidia GeForce 8500GT	Integrated	Integrated	Integrated	Integrated
Graphics chipset	Nvidia GeForce 8400GS	Nvidia GeForce 8500GT	ATI Radeon X1250	Intel Graphics Media Accelerator 950	ATI Radeon X1250	Via S3G UniChrome Pro IGP
Graphics ports	D-sub, DVI, S-video, component, composite	D-sub, DVI, S-video, component, composite	D-sub, DVI	D-sub	D-sub, DVI	D-sub
SOUND						
Sound card	RealTek HD Audio	RealTek HD Audio	RealTek HD Audio	RealTek ALC861	RealTek HD Audio	RealTek ALC660
Sound card outputs	5.1 line out	7.1 line out	7.1 line out	5.1 line out	5.1 line out	5.1 line out
Speakers	None	None	X-Pro 990 2.1	None	Logitech S100 2.0	None
REMOVABLE DRIVES						
Floppy drive (3½in)	No	No	No	No	No	No
Memory card reader	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	None	None	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive, xD	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive
Optical drive	NEC ND-5170A (18X DVD+R, 18X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD-ROM)	NEC ND-5170A (18X DVD+R, 18X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD-ROM)	NEC ND-5170A (18X DVD+R, 18X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD-ROM)	Aopen DSW2012P (20X DVD+R, 20X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW, 12X DVD, 48X CD-ROM)	LiteOn LH-201A1H (20X DVD+R, 20X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD-ROM)	TSST SH-S182M (18X DVD+R, 18X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 8X DVD-R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD-ROM)
DISPLAY						
Size and technology	19in widescreen LCD	19in widescreen LCD	19in widescreen LCD	19in widescreen LCD	19in widescreen LCD	19in widescreen LCD
Model	Hannsree XM M19W1	I-INC AH191D	I-INC AH191D	AOC 1935W	Hannsree XM M19W1	Asus VW193S
Native resolution	1,440x900	1,440x900	1,440x900	1,440x900	1,440x900	1,440x900
Response time	5ms	5ms	5ms	5ms	5ms	5ms
Inputs	DVI, D-sub, line in	DVI, D-sub, line in	DVI, D-sub, line in	D-sub, line in	DVI, D-sub, line in	D-sub
OTHER HARDWARE						
Modem	No	No	No	No	No	No
Keyboard	Microsoft Basic Keyboard 1.0A	Microsoft Basic Keyboard 1.0A	Logitech Internet 350 Keyboard	BTC KB5511A	Logitech Internet 350 Keyboard	Labtec Media Keyboard
Mouse	Microsoft Basic Optical Mouse 1.0A	Microsoft Basic Optical Mouse 1.0A	Logitech Optical Mouse	Genius Netscroll 100	Logitech Optical Mouse	Sweex Optical Mouse Black PS2
Keyboard/mouse rating	★★★	★★★	★★★	★★	★★★	★★
Extras	None	None	None	None	None	None
Software	None	None	None	Ahead Nero Express 7	Ahead Nero Essentials 7, CyberLink Power DVD 7	None
Operating system	Windows Vista Home Premium	Windows Vista Home Premium	Windows Vista Home Premium	Windows Vista Home Premium	Windows Vista Home Premium	Windows XP Home (Free upgrade to Vista Home Premium available on request)
Operating system restore option	Windows disc	Windows disc	Windows disc	Restore partition	Windows disc	Windows disc
BUYING INFORMATION						
Parts and labour warranty	One year RTB	One year RTB	Two years RTB	One year onsite	One year RTB	Two years RTB
Tech support times	9am-5.30pm Mon-Fri, 9am-4pm Sat	9.30am-5.30pm Mon-Fri	9am-5pm Mon-Fri	9am-6pm Mon-Fri	9am-5pm Mon-Fri, 9am-1pm Sat	10am-4pm Mon-Fri
Company founded	1995	1993	1999	1993	2003	1996
Tech support staff	5	7	8	20	4	3
Employees	72	35	8	78	26	18
Price including delivery (inc VAT)	£400	£400	£399	£407	£399	£400
Price including delivery (ex VAT)	£340	£340	£346	£346	£340	£340
Supplier	CCL 01274 471201	Eclipse 08707 456 000	Gladiator 08456 444666	PC Nextday	PC Specialist 0844 499 4000	RL Supplies 01923 896996
Details	www.cclonline.com	www.eclipse-computers.com	www.gladiatorcomputers.com	www.pcnextday.co.uk	www.pcspecialist.co.uk	www.rlsupplies.co.uk